

1 We claim:

1. A stop cock comprising:

a. a body and a stem, wherein the stem is rotatably mounted in the body, and the body includes a hollow shaft extending axially therethrough,
5 the shaft having an interior wall, the body also including first and second passages intersecting with the shaft, the first passage forming a first port in the interior wall of the shaft, the second passage forming a separate, second port in the interior wall of the shaft;
b. the stem being formed to be rotatably received in the hollow shaft
10 of the body, with the stem having an outer surface, part of which being formed as a side wall that corresponds to the interior wall of the hollow shaft to create a tight fit between the stem and the body, the stem being formed with a first conduit having first and second transmission exits in the side wall of the stem, the stem also being formed with a second, separate conduit
15 having first and second venting exits, with the first venting exit being formed in the outer surface of the stem and the second venting exit being formed in the side wall of the stem, and when the stem and the body are in a first particular orientation, the first transmission exit of the first conduit is blocked by the interior wall of the hollow shaft of the body and the second
20 transmission exit of the first conduit is blocked by the interior wall of the hollow shaft of the body, and when the stem and the body are in a second particular orientation, the first transmission exit of the first conduit communicates with the first port of the first passage and the second transmission exit of the first conduit communicates with the second port of
25 the second passage in the body and the second venting exit of the second conduit communicates with the second port of the second passage in the body and the first venting exit forms a vent to an outside atmosphere, and when the stem and the body are in a fourth particular orientation, the second transmission exit of the first conduit communicates with the first port of the
30 first passage and the first transmission exit of the first conduit communicates with the second port for the second passage in the body.

2. The stop cock of claim 1, wherein when the stem and the body are in the fourth particular orientation the second conduit does not allow venting to the
35 outside atmosphere from either the first or second passages in the body of the stop cock, because the second venting exit does not communicate with

1 either the first or second passages in the body, but is closed by the wall of
the interior shaft of the body.

3. The stop cock of the claim 2, wherein the stem of the stop cock is
5 moved from the first particular orientation, and then to the second particular
orientation, and then to a third particular orientation and then to the fourth
particular orientation in that order by rotating the stem of the stop cock a
single direction.

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